RESEARCH WITH RADIOACTIVE BEAMS AT THE TRIUMF-ISAC FACILITY

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The field of research with energetic radioactive beams from ISOL type systems is now well established and a number of facilities exist around the world. Such facilities provide a wide variety of accelerated beams of excellent quality and intensities to allow experimentation previously considered impossible. Indeed there are now proposals on the table in the U.S. and elsewhere to build facilities even bigger and better, e.g., RIA. Following an overview of the field, emphasis will be given in this presentation to the new TRIUMF-ISAC facility located in Vancouver, Canada and the various studies in progress or planned. In particular, studies in the area of experimental nuclear astrophysics using the unique DRAGON facility will be presented including the recently completed study of radiative proton capture on the radioactive species, ²¹Na. This rate of the reaction plays an important role in the explosive scenario such as ONe novae.

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